

Limits Placed on Ground Water Withdrawals

The commission in June of 1999 amended its Ground Water Protected Area regulations for Southeastern Pennsylvania to establish numerical withdrawal limits for 62 additional subbasins, or watersheds.

As a result, the entire Protected Area is now covered by specific numerical ground water withdrawal limits for its 76 watersheds. Withdrawal limits for the 14 watersheds in the Neshaminy Creek Basin were set by the commission in 1998.

The commission established the Protected Area in 1980 at the request of the Commonwealth of Pennsylvania after it became evident that development was negatively impacting ground water levels.

“The goal of the Protected Area regulations is to prevent depletion of ground water, protect the interests and rights of lawful users of the same water source, and balance and reconcile alternative and conflicting uses of limited water resources in the region,” notes Irene Brooks, Pennsylvania Governor Tom Ridge’s representative on the commission.

Lowered water tables in the Protected Area have reduced flows in some streams and dried up others. This reduction in baseflows affects downstream water uses, negatively impacts aquatic life, and can reduce the capacity of waterways in the region to assimilate pollutants.

The Protected Area regulations use a two-tiered system of water withdrawal limits.

The first tier serves as a warning that a subbasin is “potentially stressed.” In potentially stressed subbasins, applicants for new or expanded ground water withdrawals are required to implement one or more programs to mitigate adverse impacts of additional ground water withdrawals. Acceptable programs include conjunctive use of ground water and surface water, expanded water conservation programs, programs to control ground water infiltration, and artificial recharge and spray irrigation.



The second tier serves as the maximum withdrawal limit. Under the regulations, ground water withdrawals can not exceed that limit.

The regulations also:

- Provide incentives for holders of existing DRBC dockets and Protected Area permits to implement one or more of the above programs to reduce the adverse impacts of their ground water withdrawals. If docket or permit holders successfully implement one or more programs, the commission will extend the docket or permit duration for up to ten years;
- Specify criteria for the issuance and review of dockets and permits as well as procedures for revising withdrawal limits to correspond with integrated water resource plans adopted by municipalities for subbasins. (These plans would address such areas as future water demand, options for wastewater discharge, and flood plain and stormwater management practices.);
- Establish protocol for updating and revising withdrawal limits to provide additional protection for streams designated by Pennsylvania as “exceptional value,” “high quality,” or “wild, scenic or pastoral” as defined by the state’s Scenic Rivers Program.

The limits were derived from baseflow characteristics of geologic formations that were developed in a study by the U.S. Geological Survey (USGS). A geographic information system (GIS) was then used to generate overlay maps of the original 14 subbasins located in the Neshaminy Creek Basin. The study later was broadened to include the 62 additional subbasins that fall either entirely or partially within the Protected Area. GIS mapping also was prepared for these watersheds.

The Ground Water Protected Area takes in 1,200 square miles and includes 127 municipalities. In addition to the Neshaminy Creek Watershed, other large drainage areas include the Brandywine Creek, Perkiomen Creek, and Wissahickon Creek subbasins.

In addition to all of Montgomery County, the following areas in surrounding counties fall within the Protected Area:

- Berks: the townships of Douglass, Hereford, and Union.
- Bucks: the townships of Bedminster, Buckingham, Doylestown, East Rockhill, Hilltown, Lower Southampton, Middletown, Milford, New Britain, Newtown, Northampton, Plumstead, Richland, Upper Southampton, Warminster, Warrington, Warwick, West Rockhill, and Wrightstown; the boroughs of Chalfont, Doylestown, Dublin, Hulmeville, Ivyland, Langhorne, Langhorne Manor, New Britain, Newtown, Pennadel, Perkasie, Quakertown, Richlandtown, Sellersville, Silverdale, Telford, and Trumbauersville.
- Chester: the townships of Birmingham, Charlestown, East Bradford, East Coventry, East Goshen, East Pikeland, Easttown, East Vincent, East Whiteland, North Coventry, Schuylkill, South Coventry, Thornbury, Tredyffrin, Warwick, West Bradford, West Goshen, Westtown, Willistown, and West Whiteland; the boroughs of Elverson, Malvern, Phoenixville, Spring City and West Chester.
- Lehigh: Lower Milford Township.

DRBC Hosts Panel on Watershed/Land Use Management

The commission hosted a panel discussion March 8, 1999 on the role integrated resource planning plays in resolving complex water and land use issues.

The event was held the day before the commission's public hearings on proposed amendments to regulations that set limits on ground water withdrawals in the Ground Water Protected Area of Southeastern Pennsylvania.

Among other provisions, the regulations encourage municipalities within the Protected Area to work together in adopting integrated resource plans to address the relationship between watershed management and land use planning. The plans must cover such areas as future water demand, options for wastewater discharge, the protection of instream flows, and flood plain and stormwater management.

The six panelists provided different perspectives on integrated resource planning and the role government agencies should play in preparing and implementing such plans. The panelists were:

Jan Bowers, executive director, Chester County Water Resources Authority; Thomas Cahill, Cahill and Associates; Jerry Cardamone, Esq.; David Milan, chief executive officer, Superior Water Co.; Gregory Prowant, manager, Lower Pottsgrove Township; and Michael Stokes, assistant director, Montgomery County Planning Commission.

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— Irene Brooks,
Gov. Ridge's
representative
on the commission
